

Work Order ID: 94481

94481

Page 1

December-19-12 11:19:20 AM

Item ID: D4016-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Hinge Half, Base

Start Date: 12/25/12 Start Qty: 24.00

24

Cust Item ID:

Required Date: 1/18/13 Req'd Qty: 24.00

24

Customer:

Reference:

Approvals: Process Plan: MUS Date: 12-12-19 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4016

A

100 Cut blanks as per folio

0.00

100

Bandsaw

Memo

0.00

Jeaspa Bandsaw

CUT BLANK 1.00" LONG

110

0.00

110

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

MACHINE AS PER FOLIO FA869 AND DWG

FOLIO REV: AB

DWG REV: A

DEBURR

D40
02
89 13-01-10

D40
02
23 13-01-08

JFC/b 2013-01-12

24

Ø

Pro

NCR: ☒ Yes ☐ No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Ant Date: 2013/12/23QA Closed: cf Date: 11

Work Order: <u>94481</u>				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. <u>D4016-1</u>				Rework <input type="checkbox"/>		Skid-tube <input type="checkbox"/>		Crosstube <input type="checkbox"/>		Water Jet <input type="checkbox"/>		Engineering <input type="checkbox"/>	
NCR No. <u>13-2225</u>				Scrap <input checked="" type="checkbox"/>		Machining <input checked="" type="checkbox"/>		Small Fab <input type="checkbox"/>		Prod. Eng. Coord. <input type="checkbox"/>		Quality <input type="checkbox"/>	
				Use-as-is <input type="checkbox"/>		Thermoforming <input type="checkbox"/>		Finishing <input type="checkbox"/>		Rec/Store/Packaging <input type="checkbox"/>		Other <input type="checkbox"/>	
				Work Order Update <input type="checkbox"/>		Large Fab <input type="checkbox"/>		Composite <input type="checkbox"/>		Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data				1 part has a taper in it above from 0.875 at bottom to 0.861 to top.	DAS 16 2-83 Q52042 13/1/15	Scrap + Destroy Qty x1 \$ 35.81	BT 13-01-15	DAS 16 2-83 13/1/15	DAS 16 2-83 Q52042 13/1/14
Equip/Tooling									
Operator	<input checked="" type="checkbox"/>								
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY				
Landing Gear		General		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved	
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong	
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset	<input checked="" type="checkbox"/> Other	
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration	Operator over tightened part in use update gear	
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence		
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions		

December-19-12 11:19:20 AM

Page 2

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Cust Item ID:

Required Date: 1/18/13 **Req'd Qty:** 24.00

24

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

054/b.2 2003-01-12 24 0

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

23 ~~1~~ ³³₃₃
13.01.14
23x ~~80~~
13-01-14

160

Identify as per dwg & Stock Location: SWA 0.00

0.00

160

Packaging

Memo

0.00

Packaging

Work Order ID 94481

94481

Page 3

December-19-12 11:19:20 AM

Item ID: D4016-1
Revision ID:
Item Name: Hinge Half, Base

Accept

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Setup Start *NS1*

Stop *NS2*

Start Date: 12/25/12 Start Qty: 24.00 *24*
Required Date: 1/18/13 Req'd Qty: 24.00 *24*

Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

13/1/16

Picklist Print

December-19-12 11:19:20 AM

Page 1

Work Order ID: 94481

Parent Item: D4016-1

Parent Item Name: Hinge Half, Base

Start Date: 12/25/12

Required Date: 1/18/13

Start Qty: 24.00

Required Qty: 24.00

Comments: IPP REV:A NEW ISSUE 09-11-27 JLM VERIFIED BY :DD IPP Rev:B as per dwg REV.A DD
10.02.22 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304B1.000X1.000 304 bar 1.00 x 1.00		Purchased	No			100	f	10.9800	0.08	1.92			

Location

MAT049

122008

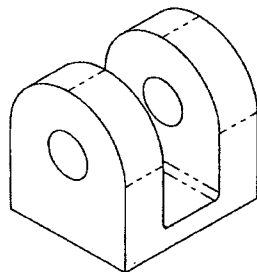
Loc Qty

10.98

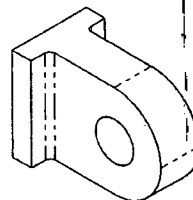
10.98

Loc Code

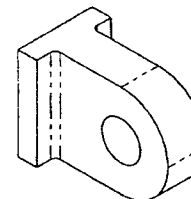
X1.92



D4016-1 HINGE HALF, BASE



D4016-3 HINGE HALF, LID



D4016-5 HINGE HALF, LIGHT LID

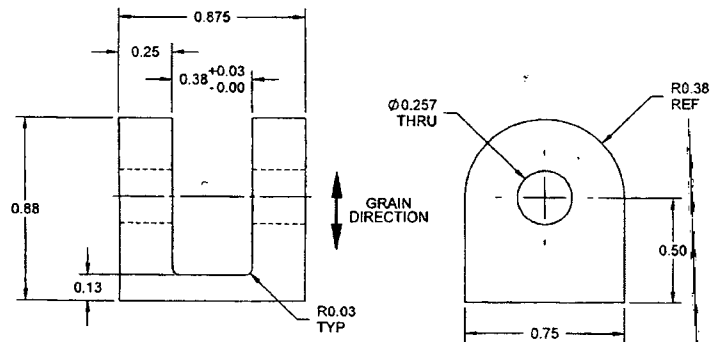
SHOP COPY
RETURN TO
ENGINEER, NO.
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 94481 MLS
12-12-K

RELEASED
2010-02-16
MP

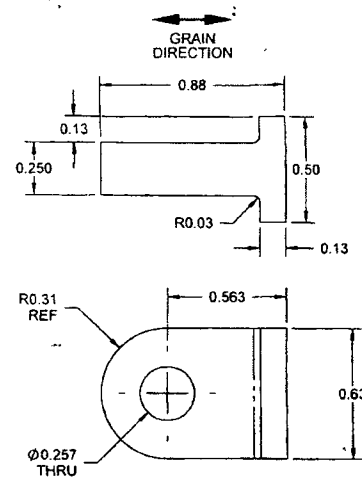
A		NEW ISSUE		JPH		10.01.29	
REV.		DESCRIPTION		BY		DATE	
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. A		SHEET 1 OF 2	
DRAWN	AJS						
CHECKED	R	DRAWING NO. D4016					
MFG. APPR.	R	TITLE				SCALE	
APPROVED	R	BASKET HINGE				NTS	
DE APPR.	R						
DATE	10.01.29						

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44481



D4016-1 HINGE HALF, BASE



D4016-3 HINGE HALF, LID

D4016-5 HINGE HALF, LIGHT LID

NOTES:

- 1) MATERIAL -1 & -3: 304/316 STAINLESS STEEL BAR, PER ASTM A276
REF DART SPEC M304B
- 5: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR,
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT -1: 0.09 lbs
-3: 0.04 lbs
-5: 0.01 lbs

RELEASED
2010-02-16

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO. D4016	REV. A
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 2	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BASKET HINGE	NTS
DATE	10.01.29	COPYRIGHT © 2010 BY DART AEROSPACE LTD	

Receiving Report

Date:

12/4/8

Batch No:

122508

Supplier:

McBry Castle

Dart P/O:

16991

Packing Slip:

Yes

No

Invoice:

Yes

No

Receipt:

Cash

Cr

Release Note Attached:

Yes

No

N/A

Waybill Attached:

Yes

No

N/A

Shipment Complete:

Yes

No

N/A

QC6 Inspection

OK 12/6/09

N/A

Work Order

N/A

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK)

Level 12

Production/Admin:

Date

Received/Costing

Initial

12/4/8
[Signature]

Location

r !

Friday, June 08, 2012 7:32:11 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO16991 Receipt Dates from 6/8/2012 to 6/8/2012 All-Line Item Types

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

[illegible]

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:1337318

Ship From: A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 04-JUN-2012	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 1337318-2	

Shipment Details				Final Destination Branch - MON			
Order No 2200388	Line No 2	Item No 8560		Description 1.0000.SQ.304.STAINLESS.HR.ANN.PICKLE.132.0000-156.0000 SPECIFICATIONS: ASTM A276			
Purchase Order No 16991		Part Number		Ordered Qty 12.00 FT		Invoice Qty 12.58 FT	
Details							
Delivery No. 117660357	Mill	Heat Number G18787	Mech Id	PCS 1	Width (IN)	Length (IN) 151	Shipped Qty(LBS) 42.78

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and; if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:



Dunkirk Specialty Steel, LLC

A Universal Stainless Company

P.O. Box 319

830 Brigham Rd.

Dunkirk, NY 14048

Quality System Registered to
ISO9001 and AS9100

Material Certification

MILL ORDER: 0040589
PART NUMBER: 8560
P.O. NUMBER: 130812

P.O. DATE: 8/22/2011

PAGE NUMBER: 1 of 1

PRINTED: 3/12/12 07:39

S A. M. CASTLE & CO.
O T 1420 KENSINGTON ROAD
L O SUITE 220
D

OAK BROOK, IL 60523

S A.M. CASTLE & CO.
H T 3400 NORTH WOLF ROAD
I O
P

FRANKLIN PARK, IL 60131

Material Description: STAINLESS STEEL SQUARE BAR 304 EAF+AQD HOT ROLLED ANNEALED PICKLED ASME SA182, ASTM A484-10, ASTM A276-10 (304 condition A, HF), ASME SA479 (304 condition A), ASTM A182-10 (F304 chemistry), Federal QQ-S-763F, ASTM A479-10a (304 condition A), AMS-QQ-S-763B (304 condition A, HF), UNS# 830400, AMS 5639H (ex. finish), Castle AMC 3304-23 Rev. 37,

Size: 1.0000 X 1.0000 X 132.0000 MIN/

156.0000 MAX RANDOM LENGTH

Heat Number	C	0.018	MN	1.61	SI	0.43	S	0.024	P	0.020
G18787	CR	18.22	W		V		NI	8.41	MO	0.20
	CO		CU	0.23	SN		FB		CB	0.01
	TA	<0.01	AL		TI	<0.01	FE		B	
	O		MG		CA		SE		ZR	
	AG		BI		N	0.083	H		CQ	

TENSILE: T/S KSI 89.6 Y/S KSI 40.8 %EL 66.1 %R/A 78.2

HARDNESS: 167 BHN

GRAIN: 6.5

MICRO TEST: ACCEPTABLE

MACRO ETCH TEST: ACCEPTABLE

COUNTRY OF ORIGIN: USA

Castle Metals FP

HEAT NUMBER G18787
MECHANICAL ID _____
ITEM CODE 8560
LOT NUMBER _____
PO NUMBER 130812
RECEIPT DATE 3-15-12
SUPPLIER DUNKIRK
SPECIFICATION _____
LCS NO
COMMENT _____
APPROVED BT

/S/John M. Berry

/S/John M. Berry

Prepared by: John M. Berry, QA

John M. Berry, QA Technician

03/12/12

Date

Melted and manufactured in compliance with DFARS 252.225-7014 ALT 1. Melted by USAF in Bridgeville, PA, USA. Certification IAW DIN 50 049 / EN 10204 3.1. Material complies with EU directive 2002/95/EC (RoHS). The test results shown are certified to be a correct statement of records that were derived from testing samples of the material. Results meet applicable specifications. No welding was performed on the material supplied on this order. Material is free from mercury contamination. Material is of NAFTA origin. This material was produced under the Dunkirk Specialty Steel Quality Management System documented in QP Manual, Rev. 6 dated 1/6/2012, conforming to NCA-3800. Material testing was performed as applicable in accordance with ASTM A370, A604, E8, E10, E18, E23, E45, E112, E139, E381, E572, E1019, STP-CHEM-GDS, E1444, & AMS 2315. The recording of false, fictitious, or fraudulent statements on this document may be punished as a felony under federal statutes, including Federal Law, Title 18, Chapter 47. Test results are maintained in company records.

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO16991

Purchase Order Date 5/16/12

PO Print Date 5/16/12

Page Number 2 of 2

Order From:

VC-MET001

METAL CASTLE

METAL CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100
TORONTO, ON M4Y 3A5

Contact Name

Vendor Phone

514 694 9575

Vendor Fax

514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

M304B0.250x0.500

304 BAR .250 x .500

5/25/12

500.00

Yours ppd

\$2.4300

\$1,215.00

Yes

f

504

Special Inst:

AISI 304/316 SS BAR OR AISI 304/316 SS
PLATE
PER ASTM A276 OR ASTM A240
NOTE:(303 NOT ACCEPTABLE)

M304B1.000X1.000

304 bar 1.00 x 1.00

5/31/12

12.00

Yours ppd

\$25.6100

\$317.32

Yes

f

12.08

Special Inst:

AISI 304/316 SS BAR OR AISI 304/316 SS
PLATE
PER ASTM A276 OR ASTM A240
NOTE:(303 NOT ACCEPTABLE)

PO Total:

\$4,996.80

MATERIAL CERTIFICATION
REQD UPON DELIVERY

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

Change Date:

5/16/12